ELECTRONIC THESIS AND DISSERTATION UNSYIAH

TITLE

UJI AKTIVITAS EKSTRAK ETANOL SABUT BUAH PINANG MUDA (ARECA CATECHU L.) TERHADAP PERTUMBUHAN ESCHERICHIA COLI, STAPHYLOCOCCUS AUREUS, DAN CANDIDA ALBICANS

ABSTRACT

ABSTRAK
Uji aktivitas ekstrak etanol sabut buah pinang muda (Areca catechu L.) terhadap pertumbuhan Escherichia coli, Staphylococcus aureus, dan Candida albicans telah dilakukan untuk mengetahui aktivitas ekstrak etanol sabut buah pinang muda dalam menghambat pertumbuhan mikroba tersebut. Ekstraksi sabut buah pinang muda dilakukan dengan menggunakan metode maserasi, sedangkan pengujian aktivitas antimikroba dilakukan dengan menggunakan metode difusi kertas cakram (Kirby-Bauer) dengan variasi konsentrasi ekstrak yaitu 5; 10; 20 dan 35%. Hasil karakterisasi simplisia diperoleh kadar air sebesar 3,57%, kadar abu total 3,55%, kadar sari larut air 29,7% dan kadar sari larut etanol 16,4%. Hasil karakterisasi ekstrak diperoleh kadar air sebesar 24,93%, kadar abu total 3,48%, kadar sari larut air 65,3% dan kadar sari larut etanol 71,3%. Hasil uji fitokimia menunjukkan bahwa ekstrak etanol sabut buah pinang muda mengandung senyawa flavonoid, tanin, saponin dan steroid. Hasil uji aktivitas antimikroba menunjukkan bahwa ekstrak etanol sabut buah pinang muda memiliki aktivitas antibakteri terhadap bakteri S. aureus dengan zona hambat terbesar yaitu 6,4 mm pada konsentrasi 35%, sedangkan ekstrak etanol sabut buah pinang muda tidak dapat menghambat pertumbuhan bakteri E. coli dan jamur C. albicans.

Kata kunci: Ekstrak etanol sabut buah pinang muda, Areca catechu L., Escherichia coli, Staphylococcus aureus, Candida albicans.

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ABSTRACT
Activity test of ethanol extract from unripe areca husk fruit (Areca catechu L.) towards growth of Escherichia coli, Staphylococcus aureus, and Candida albicans has been conducted to know the activity of ethanol extract from unripe areca husk fruit in inhibiting the growth of those microbials. Extraction from unripe areca husk fruit was conducted using a maceration method, while testing of antimicrobial activity was conducted using a disc paper diffusion method (Kirby-Bauer) with variation of extract concentrations of 5; 10; 20; and 35%. The results of simplicial characterization obtained water content of 3.57%, total ash content of 3.55%, water soluble extract content of 29.7%, and ethanol soluble extract content of 16.4%. The results of extract characterization obtained water content of 24.93%, total ash content of 3.48%, water soluble extract content of 65.3%, and ethanol soluble extract content of 71.3%. Phytochemical test showed that ethanol extract of unripe areca husk fruited contained flavonoid compounds, tannins, saponins and steroids. Antimicrobial activity test shows that ethanol extract of unripe areca husk fruit had antibacterial activity towards S. aureus bacteria with the largest inhibiting zone diameter of 6,4 mm at 35% concentration, while ethanolic extraction of unripe areca husk fruit does not inhibit the growth of E. coli bacteria and C. albicans fungi.

Keywords: unripe areca husk fruit ethanol extract, Areca catechu L., Escherichia coli, Staphylococcus aureus, Candida albicans.